A STUDY OF EXAMINATION ANXIETY AND ACADEMIC ACHIEVEMENT AMONG SECONDARY LEVEL STUDENTS IN RELATION TO THEIR PROBLEM-SOLVING ABILITY.

SYNOPSIS

SUBMITTED TO

IIMT UNIVERSITY, MEERUT

For the Partial Fulfillment of the requirements for Degree of

DOCTOR OF PHILOSOPHY

IN

EDUCATION

(Session:2021-2022)

Supervisor:
Dr. Sudha Sharma
Assistant Professor
IIMT University

Research Scholar:
Ms. Shashi Kala
Enrollment No.
IIMTU/2171373

DEPARTMENT OF EDUCATION
IIMT UNIVERSITY, MEERUT
(U.P)

Contents

1. **Introduction** 3

1.1 Anxiety and academic experience 4

1.2 Academic anxiety 6

1.3 Exam Anxiety 6

1.4 Negative consequences of exam anxiety 7

1.5 Academic Motivation 7

1.6 Problem Solving Ability in student 8

2. **Review of Related Literature** ..... 8..

2.1 Research Problem Statements 9

2.2 Significance of the study 10

3. **Research Objective**……..……**12**

4. **Research Hypothesis**……12

5. **Research Methodology** 14

6. **Sampling Technique** 14

7. **Sample Size** 14

8. **Tools and Techniques** 14

9. **Delimitations of the study** 15

Bibliography 16

1. Introduction

Sustainable social, economic, and political growth cannot occur without education, which is why it is a human right for all individuals regardless of their gender, colour, or socioeconomic standing. Academic success has a direct bearing on the country's social and economic progress. Academic success among students is crucial because it ensures the country's future is filled with talented and capable leaders and workers who will drive the country's economic and social progress. Testing is one of the most fundamental techniques of gauging students' academic progress in the context of teaching and studying a topic. Interventions aimed at improving students' access to a high-quality education can only be effective if they are based on a thorough understanding of their current academic standing and the factors that influence their performance in the classroom. Exam scores are one of the most reliable indicators of students' academic success.

The success of every society's educational system may be measured by how well it caters to the unique requirements of its students. Many academic advancements have been shown to be successful by socioeconomic and human aspects, including social, cultural, economic, political, moral, and psychological developments. People of all ages are assessed with regard to their accomplishment, skills, and talents, and standardized tests and exams at all levels of school, particularly at the secondary education level, have been seen as an essential and powerful instrument for decision making in our competitive culture. Test scores are used as an indicator of a student's academic progress, although a more comprehensive measure would be the student's cumulative performance throughout all coursework. However, low academic accomplishment is defined as results that the examinee and other important others agree are significantly below the anticipated level. Anxiety before a test is a negative response to learning. —Bai, S., Hew, K. F., Sailer, M., & Jia, C. (2021) [1].

It's the biggest obstacle in the way of pupils' learning. Students who suffer from test anxiety are afflicted with a mental illness that causes them to feel intense anguish and worry in test circumstances. Students need to feel some test-related stress in order to get themselves motivated and into learning mode. The student's performance in the classroom will suffer if they allow their anxiety levels to get too unhealthy levels.

Students often experience an accumulation of psychological symptoms such as restlessness, strange bodily movements, difficulties focusing, sleeplessness, weariness, muscular contraction, stomach discomfort, and tremors in the hours leading up to an exam**.**

1.1 Anxiety and academic experience

Anxiety as it pertains to the academic experience of students was defined, and the impact of this anxiety on students' academic performance was shown using theories that take into account the link between anxiety and achievement in the classroom. Details about them are provided below. Some problems in psychophysiology include anxiety (Callahan, 2001). The symptoms may stem from an individual's mental health, their physical health, or their surrounding environment. Anxiety comes in many forms, including but not limited to, excessive worry, fear, restlessness, excessively emotional reactions, and negative thoughts. Some individuals with anxiety manage to keep their cool even if their minds are always racing. The severity of this problem will increase, and it will significantly reduce people's standard of living. Anxiety has been variously defined by specialists. According to Breuer (1999), excessive emotional dread and physiologic hyper arousals are the defining hallmarks of all anxiety disorders. Sarason, cited in Harris et al. (2003), described anxiety as a fundamental human feeling comprised of apprehension and uncertainty that often manifests when a person views an event as a danger to their ego or self- esteem. Individuals with high anxiety are thought to have elevated levels of both trait anxiety and situational anxiety, with both states increasing in the face of evaluation. According to Spielberger's (1995) definition, anxiety is an emotional state characterized by worry, fear, and other nervous system consequences. State anxiety and trait anxiety are two distinct types. Anxiety is a normal human response to difficult situations, but state anxiety is a fleeting emotional state that reflects one's perception of the stress at a certain time or at a particular moment. However, trait anxiety is the persistent personality trait that denotes generally consistent individual variations that define people's anxiety or overall sensation of unease. With Spielberger's work, we now have a working hypothesis of what is anxiety. Anxiety has been linked to poor performance in a number of ways, including the suppression of motivation, the diversion of attention and focus, the diversion of cognitive resources, and the induction

of unnecessary concerns and anxieties. Recent research on student anxiety has identified "study anxiety," or anxiety experienced during the study process that may interfere with academic achievement. Anxiety has two components, one of which is the experience of physical discomfort, and the other is the presence of a mental state. Catastrophe theory, which examines the link between anxiety and performance in sports, served as inspiration for the anxiety viewpoint and academic performance. Learning the concepts and how worry affects performance is crucial. Martin and Robb (2005) hypothesized that physiological anxiety would have a curvilinear connection to performance whereas cognitive anxiety would have a negative association. High school pupils with high anxiety levels tend to have worse academic accomplishment, according to studies that examined the relationship between anxiety and academic success. Some people have voiced concern that such severe worry may lead to poor school achievement. Various research has revealed a correlation between academic success and lower levels of anxiety, with the majority of the studies finding a favorable link between high levels of academic success and low anxiety**.**

The impact of test- taking dread is shown in a theoretical model in Figure 1 below.

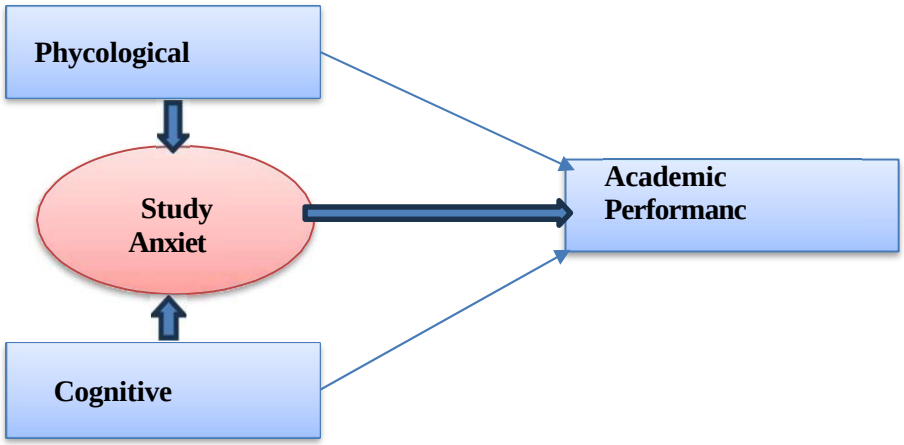

Figure 1: Theoretical model of study anxiety upon academic performance

College and university students should always strive for academic excellence. Overly rigorous course requirements or inept instruction might cause unnecessary stress for

students. As a result, students are more likely to resort to superficial methods of problem solving, and stress and worry resulting from personal or family issues also contribute to this uneasiness. When students feel overwhelmed by their workload or anxious about their academic performance, they often turn in subpar work. Anxiety may be beneficial under some conditions, helping us assess and organize resources to achieve better results in specific endeavors. For this reason, academic stress shouldn't be taken lightly.

1.2 Academic anxiety

Anxiety, tension, or dread that arises in response to school or academic-related activities is referred to as "academic anxiety." There are several factors that might contribute to anxiety about school, including tests, homework, specific classes (such as math, reading, or science), parental and peer expectations, and a general lack of comfort with study and group work. Anxieties about school may have a wide range of reasons, depending on the individual. According to the available data, however, these signs may be broken down into four groups: physiological, cognitive, behavioral, and (sometimes) social. Determine the many forms of school-related stress. Concern about fulfilling academic requirements or completing homework is normal and experienced by all students. In fact, some anxiety might be beneficial, providing extra desire to succeed in school. Facilitative anxiety is the term for this state. Learners should practice coping mechanisms to handle academic anxiety when it becomes so severe that it interferes with their ability to study.

1.3 Exam Anxiety

Anxiety over the examinations People is said to suffer from test anxiety or exam anxiety when they are confronted with the extreme dread or concern of having to do poorly on a test or when they are under pressure to perform well on the examination. A person might suffer from a sort of performance anxiety known as test or examination anxiety when they are faced with an event in which their performance counts a great deal. Anxiety over an upcoming exam may lead to a variety of physical symptoms, including headaches, stomachaches, and other types of psychosomatic discomfort. When it comes almost time for an exam, some students may find that their hearts are pounding extremely quickly or that they begin to sweat when they realize they are going to be tested. As students go to higher-

level courses, the pressure to maintain or improve their academic performance simultaneously grows, as does the amount of anxiety they experience as a result of this weight. Students at secondary schools, such as those in the tenth, eleventh, and twelfth grades, experience feelings of anxiety, dread, tension, and stress as a result of the ever-increasing level of competition**.**

1.4 Negative consequences of exam anxiety

The potentially detrimental effects of test anxiety Some scholars in this sector have come to the conclusion that students who have a higher level of test anxiety put in more effort than students who have a lower level of test anxiety. Some students who struggle with exam anxiety are able to study well, while others may not have this ability. Additionally, students' social, emotional, and behavioral development might suffer as a result of test anxiety, and students may also begin to have unfavorable feelings about both themselves and their educational institutions. It has been shown that over twenty percent of the kids who suffer from excessive test anxiety end up dropping out of school before even graduating as a result of failing their classes many times. In addition, there are studies that cite stories of students who have committed suicide as a direct result of their preoccupation with examinations. Exams may be difficult, even impossible, for certain pupils because of true, systemic issues.

They may suffer from amnesia, tremors, numbness in the hands, or any other unexpected impairment. Their minds go blank, and they may have any number of other abrupt disabilities (Hall. A, 1975). The researcher decided to carry out this study after reviewing a number of prior studies on the topic of test anxiety and taking into consideration the current examination format.

1.5 Academic Motivation

To some extent, every student worries about not having enough time to finish all of their assignments and other schoolwork. Anxiety may be helpful in that it might motivate you to do better in school. This condition is known as "facilitating anxiety." When students experience academic anxiety that is disruptive to their studies, they should work on developing strategies for dealing with it. From a theoretical perspective, a number of ideas pertaining to motivation have been suggested (e.g., self-determination theory, expectancy-value theory, social cognitive theory, self-theories). There are commonalities

between these ideas notwithstanding their discrepancies. One point of agreement is the belief that students' motivation is strongly influenced by their social environments. Despite commonalities across motivation theories, the self-determination theory is especially effective for framing COVID-19's empirical study on academic motivation. Satisfying students' demands for competence, autonomy, and relatedness are crucial to their intrinsic motivation, as proposed by the self-determination theory (Wentzel, 2009). In this context, the term "relatedness" alludes to the necessity of forming emotional relationships and interacting with other people, while "competence" refers to the desire to experience mastery inone's pursuits and interactions with the social environment. However, it is vital to assess the influence of COVID-19 on students by looking at the predictive significance of intrapersonal and interpersonal factors like anxiety and perceived social support in the trajectory of academic motivation throughout the pandemic**.**

1.6 Problem Solving Ability in student

Although some children have critical thinking skills, it has been found in the classroom that these skills are not completely developed since the kids lack the confidence to demonstrate them. Under such circumstances, the kids do not feel comfortable being instructed or corrected. They would be picked on by their peers, which would lower their self-esteem and inhibit their ability to think critically. It is essential for students to cultivate their capacity for critical thinking since this will enable them to deal with the challenges they face more effectively and to locate the answers that will be most beneficial to them. In addition, children have the capacity to think critically and the mindset of being able to solve problems, but these two things do not grow at the same rate. Some pupils have reached a point when they have completely developed their capacity for critical thinking as well as their approach to problem resolution. While other students need to work on developing it so that they can easily manage with their difficulties and avoid being upset, stressed out, and depressed as a result of their troubles, it is imperative that they do so. The purpose of the study is for the researcher to evaluate whether or not there is a correlation between senior high school students' problem-solving attitudes and their critical thinking abilities.

2. Review of Related Literature

Cheng, C. H., & Chen, C. H. (2021) [2], this research investigated these aspects of primary school children' English learning success. The experimental findings support the hypothesis that the mobile-assisted English learning system improves students' performance in the language. Furthermore, students with greater perceived usefulness have better learning accomplishment, and students with reduced English anxiety have better learning achievement. Teachers in the field might use the results to guide their search for more effective supplementary resources for their pupils.

Etherton, K., Steele-Johnson, D., Salvano, K., & Kovacs, N. (2021) [3] , This research set out to examine the impact of students' resilience using self-regulation theory as a lens. The current study proposes and tests a path model that examines self-efficacy, self-set goals, and state anxiety as mechanisms through which resilience influences performance and subjective well- being, using a sample of undergraduate students from a Midwestern university in the United States (N = 141). The findings from this study lend support to a structural model in which resilience plays a role, showing that student resilience indirectly affects performance via self- efficacy and self-set goals, student resilience indirectly affects state anxiety via self- efficacy, and student resilience accounts for unique variance in subjective well-being after controlling for state anxiety. Consequences, restrictions, and suggestions for further study are explored.

Levpušček, M. P., & Cukon, M. (2021) [4] , In this research, they validated the six-factor framework of the original STARS questionnaire by translating it into Slovenian. As such, these findings may be used to inform future studies of statistics anxiety and to further validate the STARS questionnaire. The findings may also be useful for instructors of statistics, who can use them to gain insight into their students' concerns, anxieties, and attitudes about the subject, as well as to identify and address the causes of their students' statistics anxiety and poor performance in class.

Soysal, D., Bani-Yaghoub, M., & Riggers-Piehl, T. A. (2020) [5] , This study tries to address this void by evaluating survey data collected over time and linked to math anxiety. Additionally, they evaluated the data with regard to gender and educational level using descriptive and inferential statistical approaches such as one-way ANOVA. According to a time-series analysis of the data, the levels of drive and confidence

declined dramatically as the semester progressed, while the levels of worry rose across the board. During the COVID- 19 epidemic, there has also been a dramatic decline in the use of math services like tutoring and supplementary teaching.

Bolatli, G., & Kizil, H. (2021) [6] , The proliferation of smartphones has stimulated the development of innovative mobile educational resources. The purpose of this research was to examine the impact of using mobile learning apps on students' academic performance and feelings of anxiety while studying the anatomy of the genital system. In this study, students who had taken anatomy classes between November 2018 and December 2018 participated in a randomized controlled trial. These findings suggest that compared to conventional methods of instruction, employing mobile apps to teach anatomy may improve retention of material and lower stress levels in the classroom.

Foroughi, B., Griffiths, M. D., Iranmanesh, M., & Salamzadeh, Y. (2021) [7], This research of 364 college students examined the connection between Instagram use and students' emotional and social well-being, with physical exercise serving as a moderator. Instagram addiction was also studied in relation to other psychological and socioemotional factors. The findings pointed to the roles of the need for acclaim, for connection with others, and for fun as contributors to Instagram dependency. On the other hand, the demand for knowledge was not shown to be a major predictor of Instagram dependency. The research showed that exercise moderated the connection between social needs and entertainment demands and Instagram dependency. The results also show that Instagram addiction has a favorable effect on reducing social anxiety and sadness, and a detrimental influence on academic achievement.

Hwang, G. J., Wang, S. Y., & Lai, C. L. (2021) [8] , Research in this area has shifted toward using the influence of students' peers to help them succeed in online learning environments. Concurrently, an experiment was performed using an experimental group and a control groupin this investigation. This study's constructed method not only improves students' learning performances, but also directs them toward more relevant learning behaviors in mathematics, as shown by the aforementioned verification.

Ömer et al. (2021) [9], This quantitative research looks at how several factors, including confidence in one's ability to learn a foreign language, ability to control one's anxiety about doing so, motivation to attend classes, and grades in those classes are all related to one's overall success in those languages. The authors argue that further longitudinal studies comparing SRL, academic performance, and classroom attendance in online and "conventional" classes should be published in light of the expanding importance of mixed and online learning. Moreover, they describe how educators and language students might use these results.

2.1 Research Problem Statements

This study aims to address critical gaps in understanding examination anxiety, academic performance, and motivation in secondary education. The impact of motivation from teachers and parents on academic achievement in private and government secondary schools lacks comparative scrutiny. The intricate relationship between examination anxiety and academic achievement remains insufficiently explored, necessitating a deeper investigation. A theoretical framework integrating examination anxiety, academic achievement, and motivational influences is absent, impeding a holistic understanding of secondary education dynamics. Comparative analysis of problem-solving abilities between private and government secondary schools is lacking, hindering tailored educational strategies. The study seeks to fill these gaps, offering insights crucial for enhancing the emotional well- being and academic success of secondary level students.

2.2 Significance of the study

The results of the research might have a number of important implications, including the following:

a. Assisting students who have poor levels of academic accomplishment to improve their academic performance.
b. Provide assistance to educators in the development of productive strategies for teaching and learning with the goal of raising students' overall academic attainment.
c. Serve as a guide for parents to help them understand their children's needs and give improved assistance for their children at home.

d. Help teachers and those who produce tests analyses the causes behind students' triumphs and failures so they may come up with relevant treatments for their pupils.

e. Exploring the Examination Anxiety among students, academic achievement and motivation by teachers and parents in private and government secondary schools will provide a great for understanding the overall academic attainment.

f. Exploring the Problem-Solving Ability in private and government secondary schools' students.

g. Study and investigation how the Problem-Solving Ability of private and government secondary schools' students which leads the student in various aspects in challenging situations.

3. Research Objectives

1. To study of Examination Anxiety of male and students at secondary level students.
2. To study of examination Anxiety of female students at Secondary level students.
3. To Study of Problem Soling ability of Male students at secondary level students.
4. To study of Problem Soling ability of Female students at secondary level students.
5. To study the examination Anxiety of male students with regard to their high and low Problem Soling ability at secondary level students.
6. To study the Examination Anxiety of female students with regard their high and low Problem Soling ability at secondary level students.
7. To Study the Academic Achievement of Male students with regard to high and low problem-solving ability.
8. To study the Academic Achievement of Female Students with regard to high and low problem- solving ability.
9. To study the relationship between problem solving ability and Examination Anxiety of Male students.

10 To Study the relationship between problem solving ability and examination Anxiety of Female students.

11.To Study the relationship between problem solving ability and Academic Achievement of Male students.

12.To study the relationship between problem solving ability and Academic Achievement of Female Students.

13.To study the relationship between problem solving, Academic Achievement and Examination Anxiety of Male students.

14.To study the relationship between problems lading Academic Achievement and Examination Anxiety of Female students.

4. Research Hypothesis

1. There is no significant difference between Examination Anxiety of male and female students at secondary level Students.
2. There is no significant difference between Examination Anxiety of female students at Secondary level students.
3. There is no significant difference between Problem Solving ability of Male student at secondary level students.
4. There is no significant difference between Problem Solving ability of Female Students at secondary level students.
5. There is no significant difference between the Examination Anxiety Male Students with regard to their high and low Problem-solving ability at Secondary level students.
6. There are no significant differences behaving the Examination Anxiety of female students with regard to their high and low problem-solving ability at secondary level students.
7. There is no Significant difference between the Academic Achievement of Male Students with regard to high and low problem-solving ability.
8. There is no significant difference between the Academic Achievement of Female students with regard to high and low problem-Solving ability.
9. There is no significant difference between the Relationship between problem solving ability and Examination Anxiety of Male Students.
10. There is no significant difference between problem solving ability and Examination Anxiety of Female students.
11. There is no significant difference between problem solving ability and Academic Achievement of male students.

12. There is no significant difference between problem solving ability and academic Achievement of female students.
13. There is no significant difference between the Relationship between problem solving, academic achievement and Examination Anxiety of Male Students.
14. There is no significant difference Between the relationship between problem solving, academic achievement and Examination Anxiety of female Students.

5. Research Methodology

Descriptive research method will be used. Data collection is really essential for any kind of research. So, to construct any research concrete and aptly inferential right data collection strategy is needful. In this research descriptive research method identified [11]. The research will primarily be conducted to gain the insight about study of Examination Anxiety among students in relation to their academic achievement and motivation in private and government secondary schools. A questionnaire has been constructed to collect the sample response of students. The ultimate aim is to find the Examination Anxiety among students in relation to their academic achievement and motivation.

6. Sampling Technique

Stratified random sampling will be used.

7. Sample Size

In the primary research surveys will be conducted on more than 600 students on private and government secondary schools in selective area of Noida and Greater Noida.

8. Tools and Techniques

Self-made test (Likert test) shall be prepared by the researcher. The observations will be analyzed using appropriate statistical test will be used. For this we will use three tools for analysis of Examination Anxiety among students. To analyze examination anxiety using Advanced Excel for basic tasks, SPSS for advanced statistical analyses, and A-MoS, whose specific capabilities are unclear. Excel will handle fundamental statistics, while SPSS, known for its versatility, will perform more complex analyses. A-MoS requires clarification or replacement with established tools. The choice depends on the

study's objectives, data complexity, and the need for specialized statistical features.

9. Delimitations of the study

1. Only two districts are to be selected for study.
2. Number of responses only have limited scope of the selected region.
3. Selective response collected for this investigation.

Bibliography

[1]. Bai, S., Hew, K. F., Sailer, M., & Jia, C. (2021). From top to bottom: How positions on different types of leaderboards may affect fully online student learning performance, intrinsic motivation, and course engagement. Computers & Education, 173, 104297.

[2]. Cheng, C. H., & Chen, C. H. (2021). Investigating the impacts of using a mobile interactive English learning system on the learning achievements and learning perceptions of student with different backgrounds. Computer Assisted Language Learning, 35(1-2), 88-113.

[3]. Etherton, K., Steele-Johnson, D., Salvano, K., & Kovacs, N. (2021) The effect of mobile learning on student success and anxiety in teaching genital system anatomy., 15(1), 155-165.

[4] Levpušček, M. P., & Cukon, M. (2021). Academic buoyancy, academic motivation, and academic achievement among Filipino high school students. Current Psychology, 40(8), 3958-3965.

[5] Soysal, D., Bani-Yaghoub, M., & Riggers-Piehl, T. A. (2020). Resilience effects on student performance and well-being: the role of self-efficacy, self-set goals, and anxiety. the Journal of general psychology, 149(3), 279-298.

[6]. Bolatli, G., & Kizil, H. (2021). Associations between Instagram addiction, academic performance, social anxiety, depression, and life satisfaction among university students. International Journal of Mental Health and Addiction, 20(4), 2220-2242.

[7]. Foroughi, B., Griffiths, M. D., Iranmanesh, M., & Salamzadeh, Y. (2021). Effects of a social regulation-based online learning framework on students' learning achievements and behaviors in mathematics. Computers & Education, 160, 104031.

[8]. Hwang, G. J., Wang, S. Y., & Lai, C. L. (2021). The impact of mathematics anxiety on stress appraisals, neuroendocrine responses, and academic performance in community college sample. Journal of Educational Psychology, 113(6), 1164.
[9]. Ömer et al. (2021) That old devil called 'Statistics': Statistics Anxiety in University Students and related factors. Center for Educational Policy Studies Journal, 12(1), 147-168.